

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yoshifumi Shiraishi, et al.
Appln. No. : 10/798,774
Filed : March 11, 2004
Title : A DEVICE TO PREVENT CARTRIDGE INCORRECT INSERTION,
A CARTRIDGE AUTOCHANGER, AND A CARTRIDGE AUTOMATIC
CONTROL DEVICE WITH AN AUTOCHANGER

Conf. No. : 6455
TC/A.U. : 2851
Examiner : TBD

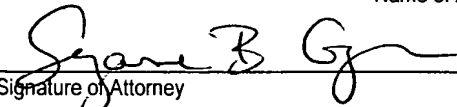
Customer No. : 000,116
Docket No. : 36418

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102(d)

Sir:

Applicants hereby petition that the above-identified application be made special under 37 C.F.R. § 1.102(d) and MPEP § 708.02, VIII, Special Examining Procedure For Certain New Applications – Accelerated Examination. The application has not received any examination by an Examiner. A preliminary amendment canceling claims 1–13 and adding new claims 14–43 has also been submitted.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.	
Suzanne B. Gagnon	
Name of Attorney for Applicant(s)	
 Signature of Attorney	September 23, 2005 Date

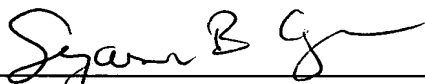
The following are submitted herewith:

- a) A check for \$130 to cover the petition fee (37 CFR §1.17(h));
- b) A statement that a preexamination search was performed, a listing and discussion of the field of search, and a detailed discussion of the most relevant uncovered references pointing out how the claimed invention is patentable over those references; and
- c) An Information Disclosure Statement, associated form PTO-1449, and references cited therein.

All the claims in the above-captioned patent application are drawn to a single invention. In the event that the Office determines that all the claims presented are not obviously directed to a single invention, it is hereby submitted that the Applicants will make an election without traverse as a prerequisite to the grant of special status.

If there are any additional fees resulting from this communication not covered by the enclosed check, or if a check was omitted, please charge all uncovered fees to our Deposit Account No. 16-0820, our Order No. 36418.

Respectfully submitted,
PEARNE & GORDON LLP

By: 
Suzanne B. Gagnon – Reg. No. 48,924

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Date: September 23, 2005



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**STATEMENT AND DISCUSSION REGARDING PREEXAMINATION SEARCH,
AND DISCUSSION OF MOST RELEVANT UNCOVERED REFERENCES
IN SUPPORT OF PETITION TO MAKE SPECIAL**

Sir:

Applicants hereby submit the following statement and discussion:

PREEXAMINATION SEARCH

A preexamination search was conducted, in compliance with MPEP 708.02, VIII. Special Examining Procedure For Certain New Applications – Accelerated Examination.

An initial U.S. patent search covered all the patents in the relevant Class/Subclass 360/69, Automatic Control of a Recorder Mechanism. A Japanese patent search covered publications containing the following relevant search fields of “cartridge,” “error,” and “insert;” and “cartridge,” “tape,” “identification” and “MIC.”

As a result of performing the aforementioned pre-examination search, the following reference was found as being most closely related to the subject matter encompassed by the claims: Kurokawa et al (U.S. Patent No. 6,084,736).

A further search was conducted covering the following U.S. Class/Subclass:

720/730, Capable of only accepting protected insertable single optical medium;

720/731, Misinsertion mechanism or sensor; and

720/731, Including misinsertion groove.

The following potentially relevant references were discovered in this search: Kawamura (U.S. Patent No. 5,57,014), and Washo et al. (U.S. Patent No. 5,196,978).

DISCUSSION OF MOST RELEVANT REFERENCE(S)

The following uncovered references appear to be the most relevant to the subject invention: U.S. Patent No. 6,084,736 (hereinafter '736); and U.S. Patent No. 5,196,978 (hereinafter '978). Thus, these references will be discussed with regard to patentability of the present claims. Each of these references is cited in the IDS.

CLAIMS

The present invention is directed, as in claims 13, 18 and 29, to a device for preventing an incorrect insertion of a cartridge into a cartridge storage space. The present invention is also directed, as in claims 21 and 33, to a cartridge changer for performing cartridge changing and preventing an incorrect insertion of a cartridge into a cartridge storage space.

The device and cartridge changer of the present invention, as set forth in independent claims 13 and 21, comprise:

(1) a claw operable to protrude into the recessed part or the through hole of the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation; and

(2) a stopper operable to work with said claw such that when said claw protrudes into the recessed part or the through hole of the cartridge, said stopper is disposed to allow the cartridge to be inserted and stored in the cartridge storage space, and when said claw does not protrude into

the recessed part or the through hole of the cartridge, said stopper is disposed to prevent the cartridge from being inserted and stored in the cartridge storage space.

The device of the present invention, as set forth in independent claim 18, comprises:

(1) a claw operable to protrude into the recessed part or the through hole of the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation;

(2) a claw position detecting part operable to detect when said claw protrudes and does not protrude into the recessed part or the through hole of the cartridge, and output a detection result; and

(3) a determining part operable to determine whether the insertion of the cartridge is in a correct orientation based on the detection result of said claw position detecting part, and output a determination result.

The device and cartridge changer of the present invention, as set forth in independent claims 29 and 33, comprise:

(1) a management information reading part operable to perform communications with the memory module of the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation; and

(2) a determining part operable to determine whether the cartridge is inserted into the cartridge storage space in a correct orientation based on whether said management information reading part performs communications with the memory module of the cartridge, and output a determination result.

REFERENCES

The '736 Patent

The '736 patent discloses a device for determining if the recording medium cartridge has a memory means for storing the identifying information of the recording medium. The device

includes a reader with a judging means to judge whether the cartridge has an identifying information memory means. According to the '736 patent, recording or replaying is performed only in the event that a particular cartridge has an identification information memory means.

The '736 patent does not disclose a claw operable to protrude into the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation as set forth in claims 13, 18, and 21. The '736 patent also does not disclose a stopper operable to work with the claw to allow or prevent the cartridge from being inserted and stored in the cartridge storage space as set forth in claims 13 and 21, or a claw position detecting part and a cartridge determining part as set forth in claim 18.

Furthermore, the '736 patent does not disclose an information reading part that communicates with the memory module of the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation as set forth in claims 29 and 33. The '736 patent also does not disclose a cartridge determining part that determines if the cartridge is inserted into the cartridge storage space in a correct orientation as set forth in claims 29 and 33.

Since each of the limitations of the claims are not disclosed by the prior art, claims 13, 18, 21, 29, and 33 and their corresponding dependent claims are patentable over the '736 patent.

The '978 Patent

The '978 patent discloses a device for indicating that a compatible cartridge has been properly inserted into a cartridge accepting section. The cartridge case has a groove on its side surface with a notch at one end and an indentation in the center. The disk accepting section has a protrusion and a sensor piece corresponding to the notch and indentation of the cartridge case. According to the '978 patent, when the indentation and sensor piece properly engage, a sensor connected to the sensor piece is activated and transmits a signal, thus, indicating the cartridge case is compatible and has been properly inserted.

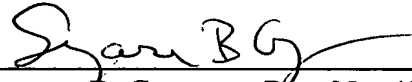
The '978 patent does not disclose a stopper operable to work with the claw to allow or prevent the cartridge from being inserted and stored in the cartridge storage space as set forth in claims 13 and 21. The '978 patent also does not disclose a claw position detecting part operable to detect when said claw protrudes and does not protrude into the recessed part or the through hole of the cartridge, and to output a detection result as forth in claim 18.

Additionally, the '978 patent does not disclose an information reading part that communications with the memory module of the cartridge only when the cartridge is inserted into the cartridge storage space in a correct orientation as set forth in claims 29 and 33. The '978 patent also does not disclose a cartridge determining part that determines if the cartridge is inserted into the cartridge storage space in a correct orientation as set forth in claims 29 and 33.

Since each of the limitations of the claims are not disclosed by the prior art, claims 13, 18, 21, 29, and 33 and their corresponding dependent claims are patentable over the '978 patent.

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